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SEQUENCE LISTING

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<110> Daiichi Sntory Farma Co.,Ltd.

<110> Kenji KANGAWA

<120> A method for producing a modified peptide

<130> D05F1044

<150> JP 2002-109761

<151> 2002-04-11

<160> 39

<210> 1

<211> 28

<212> PRT

<213> Homo sapiens

<223> Amino acid sequence for human endogenous peptides of growth hormone
secretagogue

<400> 1

Gly Ser Ser Phe Leu Ser Pro Glu His Gln Arg Val Gln Gln Arg Lys

1

5

10

15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg

20

25

<210> 2

<211> 27

<212> PRT

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<213> Homo sapiens

<223> Amino acid sequence for human endogenous peptides (27 amino acids) of growth hormone secretagogue

<400> 2

Gly Ser Ser Phe Leu Ser Pro Glu His Gln Arg Val Gln Arg Lys Glu

1 5 10 15

Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg

20 25

<210> 3

<211> 28

<212> PRT

<213> Rattus norvegicus

<223> Amino acid sequence for rat endogenous peptides of growth hormone secretagogue

<400> 3

Gly Ser Ser Phe Leu Ser Pro Glu His Gln Lys Ala Gln Gln Arg Lys

1 5 10 15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg

20 25

<210> 4

<211> 27

<212> PRT

<213> Rattus norvegicus

<223> Amino acid sequence for rat endogenous peptides (27 amino acids) of growth hormone secretagogue

<400> 4

Gly Ser Ser Phe Leu Ser Pro Glu His Gln Lys Ala Gln Arg Lys Glu

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1 5 10 15
Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg
20 25

<210> 5

<211> 28

<212> PRT

<213> Mus musculus

<223> Amino acid sequence for mouse endogenous peptides of growth hormone
secretagogue

<400> 5

Gly Ser Ser Phe Leu Ser Pro Glu His Gln Lys Ala Gln Gln Arg Lys
1 5 10 15
Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg
20 25

<210> 6

<211> 28

<212> PRT

<213> Sus scrofa (pig)

<223> Amino acid sequence for porcine endogenous peptides of growth hormone
secretagogue

<400> 6

Gly Ser Ser Phe Leu Ser Pro Glu His Gln Lys Val Gln Gln Arg Lys
1 5 10 15
Glu Ser Lys Lys Pro Ala Ala Lys Leu Lys Pro Arg
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<210> 7

<211> 27

<212> PRT

<213> Bos taurus

<223> Amino acid sequence for bovine endogenous peptides (27 amino acids)
of growth hormone secretagogue

<400> 7

Gly Ser Ser Phe Leu Ser Pro Glu His Gln Lys Leu Gln Arg Lys Glu

1 5 10 15

Ala Lys Lys Pro Ser Gly Arg Leu Lys Pro Arg

20 25

<210> 8

<211> 27

<212> PRT

<213> Ovis aries

<223> Amino acid sequence for ovine endogenous peptides (27 amino acids)
of growth hormone secretagogue

<400> 8

Gly Ser Ser Phe Leu Ser Pro Glu His Gln Lys Leu Gln Arg Lys Glu

1 5 10 15

Pro Lys Lys Pro Ser Gly Arg Leu Lys Pro Arg

20 25

<210> 9

<211> 28

<212> PRT

<213> Canis familiaris

<223> Amino acid sequence for dog endogenous peptides of growth hormone
secretagogue

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<400> 9

Gly Ser Ser Phe Leu Ser Pro Glu His Gln Lys Leu Gln Gln Arg Lys

1

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10

15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg

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<210> 10

<211> 21

<212> PRT

<213> *Anguilla japonica*

<220>

<221> AMIDATION

<222> 21

<223> Amino acid sequence for eel endogenous peptides of growth hormone
secretagogue

<400> 10

Gly Ser Ser Phe Leu Ser Pro Ser Gln Arg Pro Gln Gly Lys Asp Lys

1

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10

15

Lys Pro Pro Arg Val

20

<210> 11

<211> 23

<212> PRT

<213> *Oncorhynchus mykiss*

<220>

<221> AMIDATION

<222> 23

<223> Amino acid sequence for rainbow trout endogenous peptides (23 amino

6/16

acids) of growth hormone secretagogue

<400> 11

Gly Ser Ser Phe Leu Ser Pro Ser Gln Lys Pro Gln Val Arg Gln Gly

1

5

10

15

Lys Gly Lys Pro Pro Arg Val

20

<210> 12

<211> 20

<212> PRT

<213> Oncorhynchus mykiss

<220>

<221> AMIDATION

<222> 20

<223> Amino acid sequence for rainbow trout endogenous peptides (20 amino acids) of growth hormone secretagogue

<400> 12

Gly Ser Ser Phe Leu Ser Pro Ser Gln Lys Pro Gln Gly Lys Gly Lys

1

5

10

15

Pro Pro Arg Val

20

<210> 13

<211> 24

<212> PRT

<213> Gallus domesticus

<223> Amino acid sequence for chicken endogenous peptides of growth hormone secretagogue

<400> 13

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Gly Ser Ser Phe Leu Ser Pro Thr Tyr Lys Asn Ile Gln Gln Gln Lys

1

5

10

15

Gly Thr Arg Lys Pro Thr Ala Arg

20

<210> 14

<211> 24

<212> PRT

<213> Gallus domesticus

<223> Amino acid sequence for chicken endogenous peptides of growth hormone
secretagogue

<400> 14

Gly Ser Ser Phe Leu Ser Pro Thr Tyr Lys Asn Ile Gln Gln Gln Lys

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10

15

Asp Thr Arg Lys Pro Thr Ala Arg

20

<210> 15

<211> 26

<212> PRT

<213> Gallus domesticus

<223> Amino acid sequence for chicken endogenous peptides of growth hormone
secretagogue

<400> 15

Gly Ser Ser Phe Leu Ser Pro Thr Tyr Lys Asn Ile Gln Gln Gln Lys

1

5

10

15

Asp Thr Arg Lys Pro Thr Ala Arg Leu His

20

25

8/16

<210> 16

<211> 27

<212> PRT

<213> *Rana cafesbeiana*

<223> Amino acid sequence for frog endogenous peptides of growth hormone secretagogue

<400> 16

Gly Leu Thr Phe Leu Ser Pro Ala Asp Met Gln Lys Ile Ala Glu Arg

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10

15

Gln Ser Gln Asn Lys Leu Arg His Gly Asn Met

20

25

<210> 17

<211> 28

<212> PRT

<213> *Rana cafesbeiana*

<223> Amino acid sequence for frog endogenous peptides of growth hormone secretagogue

<400> 17

Gly Leu Thr Phe Leu Ser Pro Ala Asp Met Gln Lys Ile Ala Glu Arg

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5

10

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Gln Ser Gln Asn Lys Leu Arg His Gly Asn Met Asn

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25

<210> 18

<211> 20

<212> PRT

<213> *Tilapia nilotica*

<220>

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<221> AMIDATION

<222> 20

<223> Amino acid sequence for tilapia endogenous peptides of growth hormone
secretagogue

<400> 18

Gly Ser Ser Phe Leu Ser Pro Ser Gln Lys Pro Gln Asn Lys Val Lys

1

5

10

15

Ser Ser Arg Ile

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<210> 19

<211> 22

<212> PRT

<213> Silurus asotus

<220>

<221> AMIDATION

<222> 22

<223> Amino acid sequence for catfish endogenous peptides of growth hormone
secretagogue

<400> 19

Gly Ser Ser Phe Leu Ser Pro Thr Gln Lys Pro Gln Asn Arg Gly Asp

1

5

10

15

Arg Lys Pro Pro Arg Val

20

<210> 20

<211> 23

<212> PRT

<213> Silurus asotus

10/16

<223> Amino acid sequence for catfish endogenous peptides of growth hormone secretagogue

<400> 20

Gly Ser Ser Phe Leu Ser Pro Thr Gln Lys Pro Gln Asn Arg Gly Asp

1

5

10

15

Arg Lys Pro Pro Arg Val Gly

20

<210> 21

<211> 28

<212> PRT

<213> Equus caballus

<223> Amino acid sequence for equine endogenous peptides of growth hormone secretagogue

<400> 21

Gly Ser Ser Phe Leu Ser Pro Glu His His Lys Val Gln His Arg Lys

1

5

10

15

Glu Ser Lys Lys Pro Pro Ala Lys Leu Lys Pro Arg

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<210> 22

<211> 4

<212> PRT

<213> Artificial sequence

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<223> Amino acid sequence adjacent to a site cleaved by enterokinase

<400> 22

Asp Asp Asp Lys

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<210> 23

<211> 4

<212> PRT

<213> Artificial sequence

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<223> Amino acid sequence adjacent to a site cleaved by blood coagulation
Factor Xa

<400> 23

Ile Glu Gly Arg

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<210> 24

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Amino acid sequence containing a site cleaved by renin

<400> 24

Pro Phe His Leu Leu Val Tyr

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<210> 25

<211> 6

<212> PRT

<213> Artificial sequence

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<400> 25

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Val Asp Asp Asp Asp Lys

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<210> 26

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<212> PRT

<213> Artificial sequence

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<223> linker sequence in the fusion protein p117 8-28oPR

<400> 26

Glu Pro His His His His Pro Gly Gly Arg Gln Met His Gly Tyr Asp

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15

Ala Asp Val Arg Leu Tyr Arg Arg His His Gly Ser Gly Ser Pro Ser

20

25

30

Arg His Pro Arg

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<210> 27

<211> 36

<212> PRT

<213> Artificial sequence

<220>

<223> linker sequence in the fusion protein p117 8-28oRR

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Glu Pro His His His His Pro Gly Gly Arg Gln Met His Gly Tyr Asp

1

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10

15

Ala Asp Val Arg Leu Tyr Arg Arg His His Gly Ser Gly Ser Pro Ser

20

25

30

Arg His Arg Arg

35

<210> 28

<211> 36

<212> DNA

<213> Artificial sequence

<220>

<223> primer ORI-RR

<400> 28

ggttccggat ccccttctcg acatcgccgg gaacac

36

<210> 29

<211> 25

<212> DNA

<213> Artificial sequence

<220>

<223> primer SAL*R

<400> 29

ataagtcgac ttatcgtggc tgcag

25

<210> 30

<211> 13

<212> PRT

<213> Artificial sequence

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<223>

<400> 30

Arg His His Gly Ser Gly Ser Pro Ser Arg His Arg Arg

1

5

10

<210> 31

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223>

<400> 31

Arg His His Gly Ser Gly Ser Pro Ser Arg His Pro Arg

1

5

10

<210> 32

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223>

<400> 32

Arg His His Gly Ser Gly Ser Pro Ser Arg His Lys Arg

1

5

10

<210> 33

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223>

<400> 33

Gly Ser Ser Phe Leu Ser Pro

1

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<210> 34

<211> 4

<212> PRT

<213> Artificial sequence

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<223>

<400> 34

Phe Leu Ser Pro

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<210> 35

<211> 14

<212> PRT

<213> Artificial sequence

<220>

<223> linker sequence

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Arg Arg His His Gly Ser Gly Ser Pro Ser Arg His Pro Arg

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<210> 36

<211> 27

<212> DNA

<213> Artificial sequence

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<223> h8-28f1

<400> 36

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27

<210> 37

<211> 33

<212> DNA

<213> Artificial sequence

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<223> h8-28r1

<400> 37

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33

<210> 38

<211> 49

<212> DNA

<213> Artificial sequence

<220>

<223> GR2f

<400> 38

cagcgtaagg aatccaagaa gccaccagct aaactgcagc cacgatgag

49

<210> 39

<211> 44

<212> DNA

<213> Artificial sequence

<220>

<223> GR2r

<400> 39

tcgactcatt gttgctgcag tttagctggc ttcttggatt cctt

44